

# INDEX TO VOLUME XIII.

- Abbot Sphinx, 2.  
*Acipitus Belfragei*, n. s., 132.  
*Acolasia hima*, 92.  
*Aedia limbolaris*, 91.  
*Aegeridæ*, on some species of, 3.  
*Aegeria acerni*, 7, 69, 236.  
     *exitiosa*, 7.  
     *pictipes*, 7.  
     *pinii*, n. s., 5, 157.  
     *pyri*, 8.  
     *tipuliformis*, 7.  
     *tricincta*, 3.  
*Agriphila bistrisaris*, 91.  
*Agrotis colata*, n. s., 131.  
     *esurialis*, n. s., 131.  
     *navalis*, n. s., 131.  
     *semiclarata*, n. s., 131.  
*Alaus gorgops*, 59, 80, 116, 235.  
     *oculatus*, 116, 117.  
*Aletia argillacea*, 234.  
*Anguonius grain moth*, 197.  
*Anisota rubicunda*, 215.  
 Annual address of President Ent. Sub-Sec. A. A. S., 184.  
 Annual address of President Ent. Soc. Ont., 197.  
*Anthracis genutia*, 211.  
*Anthomyiidae*, list of N. Amer., 43.  
*Anthomyia raphani*, 190.  
*Antiblemma flavipunctalis*, 91.  
*Antigaster*, on the genus, 31.  
     vs. *Eupelmis*, 114.  
*Apatura clyton*, 85.  
     flora, preparatory stages of, 81.  
*Aphididae* of Florida, 154, 220.  
*Aphis*, a new, affecting pine, 67.  
*Arboreal auscultation*, 19.  
*Argynnis idalia*, 209.  
     *myrina*, 183, 210.  
 Army worm, 181, 198.  
*ASHMEAD, W. H.*, articles by, 67, 89, 134, 154, 170, 220.  
*Aspidiotus citri*, n. s., 8.  
     *ficus*, 9.  
*Aspites analis*, 165.  
*Autographa oxygramma*, 91.  
  
*Basilarchia*, note on, 195.  
*BASSETT, H. F.*, articles by, 51, 74, 92.  
*BELL, JAMES T.*, articles by, 19, 58, 114, 116.  
*BETHUNE, Rev. C. J. S.*, articles by, 162, 252.  
*Bombyciæ* of Hubner, N. Am., 151.  
     *semicircularis*, 152.  
*Bombylius major*, 166.  
     *pygmaeus*, 166.  
  
*Bomolocha fecialis*, n. s., 133.  
     *incusalis*, n. s., 133.  
 Book notices, 196, 216, 250.  
*Botis annaphilatis*, n. s., 33.  
     *commortalis*, n. s., 233.  
     *dapalis*, n. s., 17.  
     *flavinotalis*, n. s., 33.  
     *lethalis*, n. s., 33.  
     *ruffimbrialis*, n. s., 33.  
     *turnalis*, n. s., 33.  
     *vacuolalis*, n. s., 33.  
 Buckeye stem borer, 183.  
*Butalis cerealella*, 197.  
 Butterflies, length of life of, 181, 205.  
     list of found at Potsdam, New York, 49.  
     Scudder's book on, 216, 246.  
  
 Cabbage butterfly, 230.  
*Callidryas eubule*, 196.  
*Caloptenus spretus*, 180, 203.  
*Calosoma scrutator*, 18.  
 Carbolic acid, a preventive of insect ravages, 182, 189.  
*Carpocapsa pomonella*, 176.  
*Caryoborus arthriticus*, 20.  
*Catocala Arizonae*, 232.  
     *grynea* var., 35.  
     *Nebraskæ* var. of, 40.  
     *anjuga*, larva of, 38.  
*CAULFIELD, F. B.*, article by, 60.  
*Cecidomyia leguminicola*, 215, 235.  
     on *Aristolochia siphon*, 37.  
*Cerura borealis*, larva of, 145.  
     *occidentalis*, larva of, 144.  
*Cetonia inda*, 1.  
*Chalcididae* from Florida, 134, 170.  
 Chalcid fly, a gigantic, 89.  
*CHAMBERS, V. T.*, articles by, 25, 173, 191.  
 Chinch bug, 198.  
*Chrysomela 10-lineata*, 20.  
     *juncta*, 20.  
*Chrysomphalus ficus*, 9.  
*Chrysophanus nais*, concerning, 17.  
*Chrysops sepulchralis*, 167.  
*CLAYPOLE, E. W.*, article by, 115.  
*Clytie labarna*, 91.  
*Clytus speciosus*, 236.  
*Coccidae*, notes on, 8.  
 Codling moth, 176.  
     " worm, proposed remedy for, 202.  
*Cœnonympha etho*, n. s., 57.  
 Collection notes for 1880, 58.  
*Colias philodice*, 115.  
 Colorado potato beetle, 115, 201, 234.

- COMSTOCK, J. H., article by, 8.  
 COOK, A. J., article by, 189.  
 COQUILLETT, D. W., articles by, 21, 137.  
 Corrections, 60.  
 Correspondence, 17, 60, 80, 256.  
 Cotton worm moth, 234.  
 Crambus attenuatus, 67.  
 " minimellus, 66.  
 " occidentalis, 66.  
 " sericinellus, 66.  
 " undatus, n. s., 33, 66.  
 " vulvivagellus, 182, 189.  
 Ctenucha virginica, 218.  
 Culex punctator, 164.  
 Cupes capitata, 176.  
 Cymatophora cymatophoroides, 152.  
 " expultrix, 152.  
 Cynipidae, new species of, 51, 74, 92.  
 Cynips affinis, n. s., 103.  
 " Q. agrifoliae, n. s., 53.  
 " " bella, n. s., 93.  
 " Q. Californica, n. s., 51.  
 " capsula, n. s., 101.  
 " cinerosa, n. s., 110.  
 " cicutricula, n. s., 101, 113.  
 " corrugis, n. s., 109.  
 " coxii, n. s., 112.  
 " Q. ficula, n. s., 75.  
 " floccosa, n. s., 111.  
 " gemula, n. s., 104.  
 " ignota, n. s., 106.  
 " Q. mammula, n. s., 76.  
 " minuta, n. s., 96.  
 " noxiosa, n. s., 108.  
 " Q. umbilica, n. s., 56.  
 " papula, n. s., 107.  
 " Pattonii, n. s., 98.  
 " picta, n. s., 105.  
 " phylla, n. s., 99.  
 " Q. pomiformis, n. s., 74.  
 " rugosa, n. s., 104.  
 " Suttonii, n. s., 54.  
 " tenuicornis, n. s., 92.  
 " utricula, n. s., 78.  
 " vesicula, n. s., 97.  
 Danais archippus, 205, 211.  
 DAY Dr. L. T., article by, 85.  
 Death of J. D. Putnam, 256.  
 Decatoma batatoides, n. s., 136.  
 " flava, n. s., 134.  
 " foliata, n. s., 136.  
 " lane, n. s., 135.  
 " phyllis, n. s., 136.  
 " quercii, n. s., 135.  
 Deilinia glomeraria, 134.  
 Diabrotica longicornis, 200.  
 Diastrophus similis, n. s., 95.  
 Differences without distinctions, 123.  
 DODGE, G. M., article by, 40.  
 Dryomyza pallida, n. s., 89.  
 DURV, Chas., article by, 20.  
 Dyachys balluca, 91.  
 EDWARDS, W. H., articles by, 9, 17, 57, 61, 81, 119, 158, 205, 226, 237.  
 Empis luctuosa, 165.  
 " geniculata, 165.  
 Entomological Society of Ontario, annual meeting of, 233.  
 " Sub-section A. A. S., meetings of, 154, 179, 214.  
 " notes, 37, 175, 195.  
 Entomology for beginners, 1, 41, 69, 117, 138.  
 Epizeuxis lubricalis, 91.  
 Eristalis tenax, 176.  
 Eudamus electra, n. s., 63.  
 Euryomia inda, 1.  
 Eurytoma vagabunda, n. s., 134.  
 Exarius diffusa, 91.  
 Eyed Elater, 117.  
 FISH, Chas., articles by, 70, 140.  
 Forficula, forceps of, 80.  
 FRENCH, G. H., articles by, 23, 144, 147.  
 Fruva georgica, n. s., 232.  
 Gaurotes cyanipennis, 60.  
 Gelechia beneficientella, n. s., 245.  
 " Chambersella, n. s., 242.  
 " cinerella, n. s., 244.  
 " formosella, n. s., 243.  
 GOODELL, L. W., article by, 30.  
 Gracilaria purpuricella, 25.  
 " stigmatella, early stages of, 25.  
 " syringella, 26.  
 Graphiphora agrotiformis, n. s., 14.  
 GROTE, A. R., articles by, 14, 33, 66, 90, 126, 131, 151, 175, 195, 229.  
 Habrosyne scripta, 153.  
 Hadena perpenos, n. s., 229.  
 HAGEN, Dr. H., articles by, 37, 43, 146, 150.  
 Heliconia charitonia, preparatory stages of, 158.  
 Heliophila sarcta, n. s., 15.  
 " flabilis, n. s., 15.  
 " oxygala, n. s., 14.  
 Heliopsis armigera, 215.  
 Hemaris Buffaloensis, note on, 175.  
 Heterocera, life duration of, 181, 217.  
 HRUSTIS, Caroline E., article by, 143.  
 Hippobosca equina, 169.  
 HOFFMEISTER, A. W., article by, 196.  
 Hornet's nest, how captured, 114.  
 HOWARD, L. O., article by, 31.  
 Hvblaea pueri, 17.  
 Hypena scabra, early stages of, 137.  
 Hyphantria textor, 18.  
 Eacles imperialis, 59.  
 Economic Entomology, Bibliography of, 39.  
 Ichneumon ruficentris, 144.

JOHNSON, James S., article by, 18.  
Junonia cœnia, 196.

KELLCOTT, D. S., articles by, 3, 38, 157.  
Kirby's Fauna Boreali-Americana, 162.

Lachnosterna fusca, 195, 200.

Lachnus australi, n. s., 68.

" quercicolens, n. s., 155.

Lebia grisea, 234.

LECONTE, Dr. J. L., article by, 80.

Length of life of butterflies, 181, 205.

Lepania ophthalmica, 152.

Leucania pseudargyria, larva of, 24.

" unipuncta, 198, 215.

Libythea Bachmani, preparatory stages of, 226.

Life duration of the Heterocera, 181, 217.

Limenitis arthemis, is it double-brooded, 237.

" eros, 29, 79.

" misippus, 29.

" var. Floridensis, 29, 79.

LINTNER, J. A., articles by, 63, 217.

Liopitilus grandis, n. s., 141.

" Kellicottii, n. s., 141.

Lithocolletis gregariella, n. s., 245.

Longicornes, food habits of, 60.

Lucanus dama, 118.

Lyceia pseudargyriolus, 210.

" violacea, 210, 216.

Macrosila cingulata, 256.

NAMESTRA anguina, n. s., 129.

" bisulca, n. s., 230.

" condita, 127.

" illaudabilis, 129.

" laudabilis, 129.

" N. Amer. species of, 126.

" trifolii, larva of, 23.

" var. oregonica, 230.

Maple tree borer, 69, 236.

MEAD, Theodore L., article by, 35.

Melitæa phæton, 196.

MOFFATT, J. Alston, articles by, 18, 115, 175, 256.

Mordella, on a larva of, 173.

Moths, new, chiefly from Arizona, 229.

" North American, 14, 33.

MUNDT, A. H., article by, 35.

Musca cadaverum, 168.

" mortisequa, 168.

MURTFELDT, Mary E., article by, 242.

Nematis Erichsoni, 37.

Noctuidæ, North Amer. in the Zutrage, 90.

" new, 131.

Noctuid larvæ, notes on some, 23.  
Notodonta concinna, 138.

Obituary, 256.

Œdematophorus Baroni, n. s., 73.

" cineraceus, n. s., 73.

" gratus, n. s., 73.

" lugubris, n. s., 140.

Oncocnemis gracillinea, n. s., 231.

Oria sanguinea, 90.

OSTEN SACKEN, C. R., article by, 80.

Packardia nigripunctata, n. s., 30.

Papilio ajax, 206.

" var. Walshii, 206.

" " telamonides, 206.

" " marcellus, 206.

" cressphontes, 115.

" preparatory stages of, 177.

" palamedes, " 119.

" philenor, " 9.

" " on Aristolochia siphon, 37.

PEARODV, S. H., article by, 246.

Pea bug, 235.

Pear tree Psylla, 220.

Perigrapha, list of species of, 133.

Perispasta immixtalus, n. s., 232.

Persimmon Psylla, 222.

Personal, 255.

Philampelus satellitia, 21.

Phyllaphis niger, n. s., 155.

Phytonomus punctatus, 215.

Platyptilus albicans, n. s., 71.

" Edwardsii, n. s., 72.

Plusia falcifera, 163.

" iota, 163.

" precatious, early stages of, 21.

" rectangula, 162.

Pogonocherus mixtus, 60.

Poisons for insects, 201.

Prodenia lineatella, larva of, 24.

Psylla diospyri, n. s., 222.

" ilecis, n. s., 225.

" magnoliæ, n. s., 224.

" pyri, 220.

Pteromalus g-maculatus, n. s., 171.

Pterophoridae, 70, 140.

Pulex gigas, 169.

Pyrameis cardui, parasite on, 143.

Red-humped apple tree caterpillar, 138.

REED, E. B., articles by, 176, 233.

Retarded development in insects, 180, 203.

RILEY, C. V., article by, 114.

- Samia* Gloveri of Utah, 35.  
     "    ceanothi of California, 35.  
*Saperda* candida, 191.  
     "    cretata, 191.  
     "    Payl, 175.  
 Sarcophagidae, list of North American, 146.  
 Satellite Sphinx, 41.  
 SAUNDERS, W., articles by, 1, 41, 69, 117, 138, 179,  
     195, 196, 197, 214, 216, 250, 254, 255, 256.  
*Scaeva* ribesii, 167.  
*Schineia luxea*, n. s., 230.  
 Sciomyzidae, new species of, 85.  
*Sepedon fuscipennis*, 88.  
*Simulium pictipes*, 151.  
     "    quadrivittatum, 151.  
     "    venustum, 151.  
*Smicra gigantea*, n. s., 90.  
*Spalangia? syrphi*, n. s. ? 171.  
 Stag beetle, 118.  
 STRÖCKER, H., articles by, 29, 156.  
  
*Tabanus affinis*, 166.  
     "    zonalis, 167.  
 TALLANT, W. N., article by, 115.  
 Tarache, list of species of, 16.  
*Terias mexicana*, 196.  
     "    nicippe, preparatory stages of, 61, 115.  
  
*Tetanocera clara*, 85.  
     "    combinata var. sparsa, 85.  
     "    lineata, n. s., 88.  
     "    montana, n. s., 87.  
     "    pictipes, 85.  
     "    plebeja, 87.  
     "    plumosa, 87.  
     "    pubescens, n. s., 86.  
*Thecla Henrici*, 211, 215.  
*Thyreus Abbotti*, 2.  
 Tineidae, new species of, 242.  
     "    North American, 191.  
*Tipula pratorum*, 164.  
 To our readers, 1.  
*Trichoptilus ochrodactylus*, n. s.,  
*Trigonophora frugiperda*, 91.  
*Trochilium denudatum*, 8.  
     "    grande, n. s., 156.  
  
 WILLISTON, Dr. S. W., article by  
 WORTHINGTON, C. E., article by,

Xylomiges, perlubens, 132.  
 Xyloryctes satyrus, 50.

